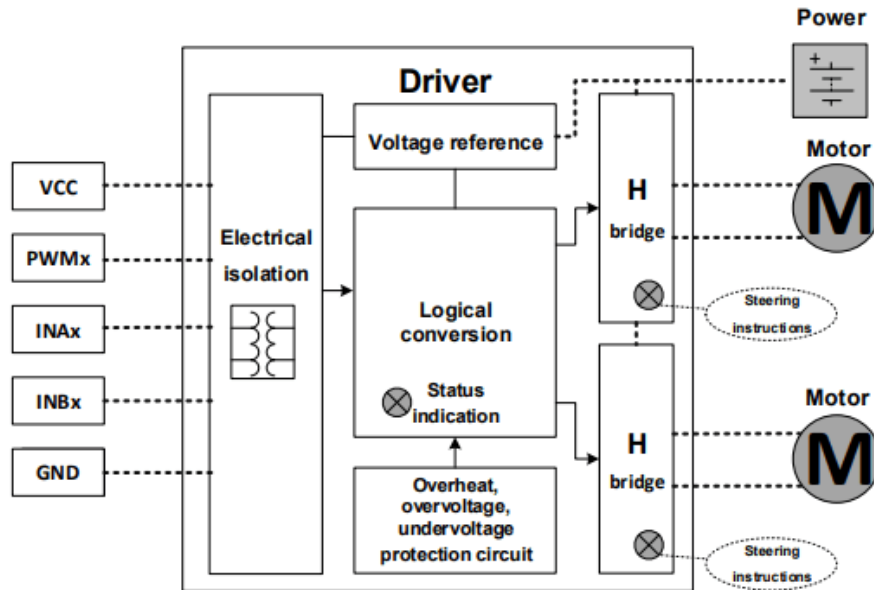# Dual-Channel DC Motor Driver-12A

SKU:DFR0601

INTRODUCTION

This is a dual channel DC motor driver with an extremely small size of of 1.97"×1.97"×0.49". The module comes with two motor channels that can drive two motors simultaneously, and each channel employs an indicator to show the rotation direction of the motor: blue is forward rotation, red is reverse rotation. Support motor voltage ranges from 6.5V to 37V. Each motor channel can output 12A current continuously and the max power of the DC motor the module supports is up to 290W. The momentary peak current can reach up to 70A and last about 100ms. At the same time, the highly timing optimization of the units inside the driver makes the minimum pulse width of PWM input as narrow as 2us, which fully ensured its dynamic adjustment range and greatly improved the quality of controlling motors.
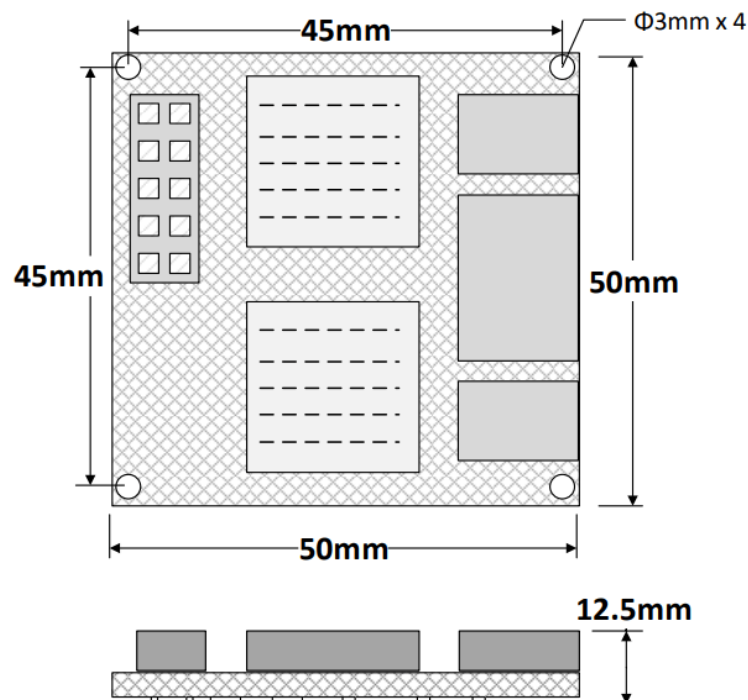
The module integrated over-voltage, under-voltage, and overheat protection circuit that will be triggered when facing with the these situations. There is an on-board STATE indicator to indicate protection state: ON->Work properly; Flashing quickly->Over-voltage; Flashing slowly->Under-voltage; Double flashing->Overheat. The latter three situations will turn off the output, which can efficiently reduce the possibility of device damage in abnormal operating conditions.

Using this dual channel DC motor driver together with Arduino controller is able to easily realize motor controlling. The module can be applied to automatic robot, mechatronic, equipment manufacture, scientific production, electronics competition and so on.
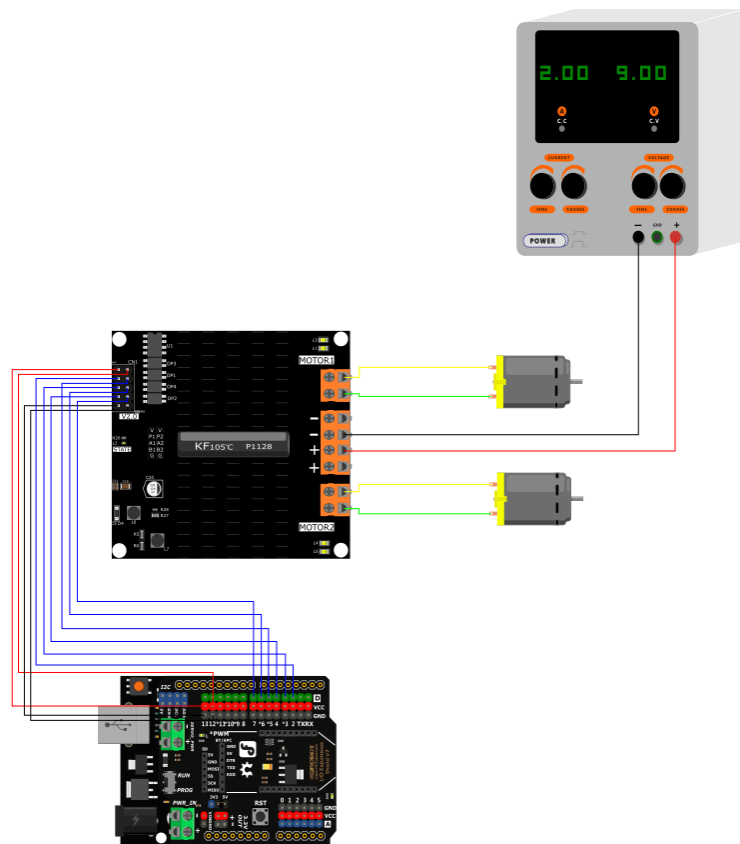
Schematic Diagram

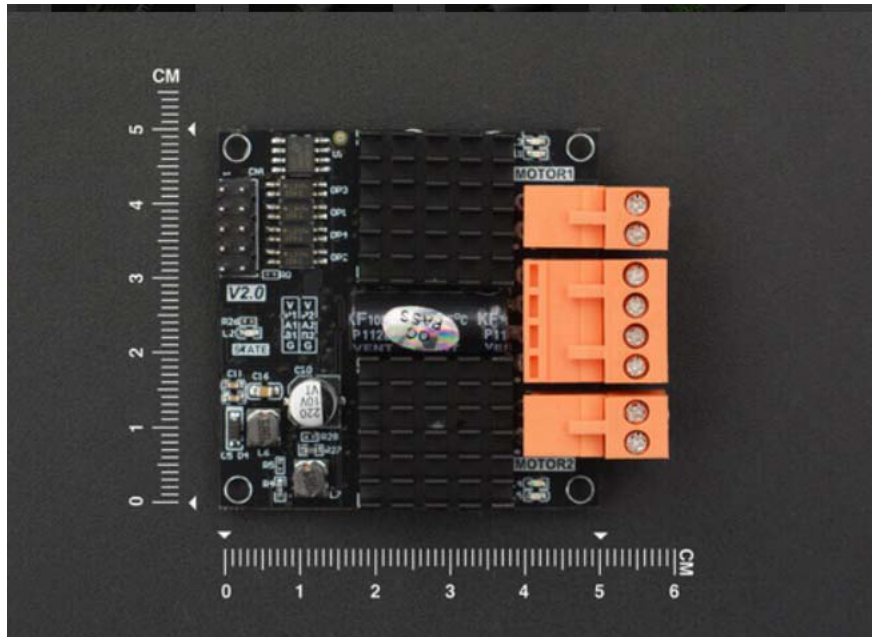## Dimension Diagram
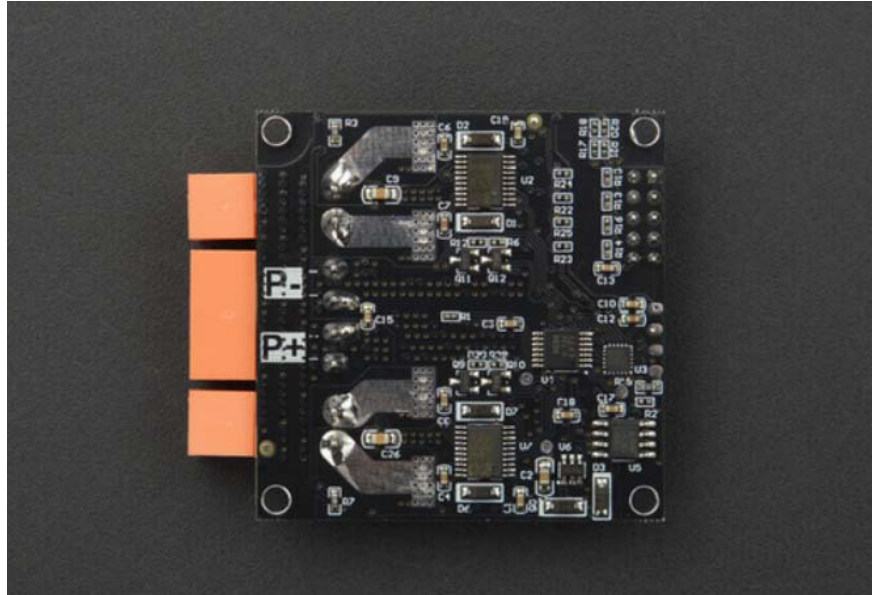
Connection Diagram

SPECIFICATION

- Motor Channel: 2

- Signal Control Voltage: 3V-5V compatible

- Input Voltage: 6.5-37V DC

- Peak Current: 70A(100ms), the current will be limited as the temperature increases.

- Continuous Current: each channel can output 12A current continuously

- Operating Temperature: -25-85℃

- Overheat Temperature: 85℃-95℃

- Over-voltage: 37.5V

- Under-voltage: 6.3V

- Dimension: 50mm×50mmx12.5mm/1.97"×1.97"×0.49"

- Built-in over-voltage, under-voltage and overheat protection circuit, onboard STATE indicator to show the present work state.

SHIPPING LIST

- Dual-Channel DC Motor Driver-12A x1

https://www.dfrobot.com/product-1862.html?search=DFR0601/7-12-19